

died in St. Martin's Workhouse, from disease of the brain. Mr. C. noticed that the portions of the intestine usually stained by bile, in its transudation, were untinted by that fluid; and on subsequently raising the liver, found the circumstance accounted for, by an absence of the gall-bladder from its usual situation; a shallow groove for it, however, was present, lined by peritoneum.

Suspecting malposition, Mr. C. searched for this viscus, or its remains, in the neighbourhood, but without success; and on subsequently making thin slices of the liver in its whole extent, was convinced that the case was one of congenital deficiency of the gall-bladder.

The liver was only two-thirds of its natural size, and healthy in structure. Nothing abnormal was seen in the other viscera. The right and left hepatic ducts were of their wonted length and ordinary diameter, uniting together at an obtuse angle just below the transverse fissure, to form a ductus choledochus, which was thus, by inclusion of the common hepatic duct, a longer canal than usual, whose relations were natural, but it was possessed of a calibre nearly twice as large as under ordinary circumstances. The lining membrane of this trunk presented the appearance characteristic of the mucous wall of the gall-bladder. The cystic artery, vein and nerves were wanting.

In the case related, Mr. C. remarks, the ductus choledochus must have formed the reservoir for the bile which is being continually secreted; and the small size of the liver would show, perhaps, that there was no greater amount of this fluid eliminated than the canal would conveniently contain. An interesting point is, a consideration of the mode in which the duct was induced, as it were, or forced, to part with its contents. When the gall-bladder is present, it is ordinarily believed that the abdominal muscles, in their contraction, so press upon it as to evacuate the bile, and that the expulsion is aided by the distension of the stomach and duodenum. In the present instance, of course, such offices were uncalled for, the bile having simply to be discharged from the ducts, which would be accomplished by the presence of chyme, in the duodenum, inciting their muscular coat to peristaltic action, at the same time that the orifice of the canal would be rendered patulous by the coincident movements of the gut.

---

#### ORGANIC CHEMISTRY.

9. *On the frequent occurrence of Alkaline Urine in Health, and the Errors of Diagnosis occasioned by a want of knowledge of this fact.* By Dr. ADOLPH KRUKENBERG of Brunswick.—The fact—first promulgated by Wöhler—that the internal use of salts of vegetable acids, and fruits containing them, causes the urine to be secreted alkaline, has been too much neglected by succeeding physiologists and pathologists. Our author found that a much smaller quantity of fruit was necessary for the production of this phenomenon than has hitherto been supposed, viz.—2 to 4 oz. of apple pulp, or 18 plums, weighing without the stones scarcely 1½ oz., sufficed to make the urine alkaline and hazy from phosphates; or if clear on excretion, heat caused their deposition; the addition of a little hydrochloric acid caused an effervescence like champagne; too much liquid, a bladder already filled with acid urine, or a disproportionate allowance of flesh, interfered with the success of the experiment. How often are those ill of chronic complaints who use a moderate diet, and with whom fruit is a useful and favourite article, troubled with hazy and alkaline urine, causing anxiety alike to themselves and their physician, which a little physiology does away with. In the simple chronic nephritis of Rayer, the chief symptom is the alkalinity of the urine; in no case was there a seetio-cadaveris; and some of the cases recovered so quickly, as to justify a doubt as to the correctness of the diagnosis; although he inculcates careful dietetic treatment, it is evident from his work that the semiotic influence of fruit in small quantities was unknown to him. This article is not forbidden at La Charité, and friends of the patients often carry them some. In several of his cases the alkalinity of the urine seemed to depend on purulent admixture, and consequent rapid putrefaction; and in one it seemed to be kept up, if not produced, by the use of an alkaline saline water (Contrexeville). The alkalinity of the urine has also been used

by Prout as a diagnostic sign of certain spinal affections. These he divides into two great classes.—1st. Those arising from depressing emotions and weakening influences; and in these he recommends the use of fruit, and fluids containing malic acid, as cider and perry: to these, and not to any disease, our author refers the alkalinity of the urine. 2d. Injuries of the spine; our author states, that neither Rayer nor himself had ever been able to observe the urine alkaline in cases of injuries of the spine, unless there were some existing or consecutive affection of the mucous membrane of the urinary passages, producing purulent admixture, hastening thereby the putrefactive changes in the urine. In the three cases detailed by Prout, two had stricture of the urethra, and the third retraction of the testicle, and a mucous sediment—all bespeaking the existence of some such affection. A microscopical examination, by showing the existence or absence of pus cells in the urine, would have confirmed the diagnosis, or at once corrected it. How far inattention to diet may have led to error, cannot be specified. Prout also mentions, without explanation, what has been already referred to—viz., that although alkaline urine, by copious secretion, be clear and bright, yet boiling causes it to deposit a phosphatic sediment, which falls without any such previous process, if the secretion be more sparing; the phosphates separate before the boiling point, and from their great specific gravity fall rapidly, and may thereby, as well as by their solubility in acids, be distinguished from the albumen found in Bright's disease.—*Month. Journ. Med. Sci.*, Aug., 1847, from *Zeitschrift für Rationelle Medizin*, Bd. III. ht. 1.

10. *Oxalic Diathesis*.—The *Provincial Med. and Surg. Journ.* contains a series of articles by Dr. EDWARD BALLARD, illustrative of the condition of the system, which is accompanied by oxalic urine. The morbid states which Dr. B. has seen the oxalic diathesis accompany, are the following:—"Hypochondriasis; delirium tremens; a disposition to this disease or mental derangement from intemperance; mania; melancholia; mercurial tremor; cerebral hemorrhage; hysteria; spermatorrhœa; debility and cachexia connected with a serofulous constitution; eczema; acne; gastrodynia; acute, gonorrhœal and chronic rheumatism; Bright's disease of the kidney, (shortly before the comatose stage;) cancer of the liver; cancer of the lung; cancer of the uterus and bladder; irritability of the bladder; enlarged prostate; hypertrophy, with valvular disease of the heart; and aneurism of the aorta. Its occurrence with granular kidneys and albuminuria is remarkable for its extreme rarity. In some persons of unhealthy parentage and serofulous taint, I am disposed to believe, that the secretion of oxalate of lime with the urine may become habitual, since I have noticed it continue in such a person for some months, independently of the presence of any active disease, and unaffected by change of air, modifications of diet, or tonic medicine. So far as my own observations have been carried, the sexes appear to share equally in the diathesis."

In one case, (a girl, aged ten years, labouring under debility, connected with serofulous constitution,) Dr. B. observed all three forms of oxalate of lime, the octahedral, dumb-bell and circular. The octahedra occur much more frequently than the other two forms. Out of 139 specimens of oxalic urine, examined by Dr. B., this form was present in 136, the dumb-bells 6, the circular 10. Out of 19 individuals, whose cases Dr. B. has analyzed, the octahedra occurred in 18, the dumb-bells 2, and the circular form 6. "In one individual I have seen," says Dr. B., "the circular plates are the only manifestation of the oxalic tendency, during the time he was under observation; but dumb-bells have, in my experience, never presented themselves without being accompanied, preceded, or followed by octahedra. The circular form, again, I have noticed to occur alone in three out of the ten examples of it; and in only one of the remaining seven were dumb-bells conjoined; and, although I am satisfied, from unrecorded observation, that dumb-bells also may occur without octahedra, yet, in the six specimens, alluded to above, they were accompanied by them. These two remarkable forms appear to be not very distantly allied. The specific gravity of the greatest number of specimens I have examined, ranged between 1014 and 1031, the average between these numbers being 1022. Out of 127 specimens, 14 were below specific gravity 1014, and 8 only above 1031. I have also remarked, with other observers, that when oxalate of lime was in progress of being discharged, a diminution of it